Remarks

Reconsideration of this application as amended is respectfully requested.

Claims 1-2, 6, and 8-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,205,362 of *Eidson* (*"Eidson ('362)"*).

Claims 3-5, 7, and 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Eidson ('362)* in view of U.S. Patent No. 5,566,180 of *Eidson* (*"Eidson ('180)"*).

Claims 4-5 and 7-8 have been canceled.

The Examiner has rejected claims 1-2, 6, and 8-11 under 35 U.S.C. § 103(a) as being unpatentable over *Eidson ('362)*. Applicants respectfully submit, however, that amended claim 1 is not obvious in view of *Eidson ('362)*. Amended claim 1 is a distributed system that includes the limitations

> a set of nodes that communicate via a network;
> a set of node applications and a set of event time-stamp recorders and a set of synchronized clocks distributed among the nodes, the event time-stamp recorders generating a set of time-stamp records in response to a set of software events associated with the node applications, <u>each time-stamp record including an identifier for the corresponding software event</u> and a time value obtained from one of the synchronized clocks in response to the corresponding software event;
> <u>means for obtaining the time-stamp records from the event logs via the network and analyzing the time-stamp records using a time base provided by the synchronized clocks</u>.

(Amended claim 1, emphasis added).

Eidson ('362) does not disclose or suggest event logs that hold time-stamp records which include identifiers for software events as claimed in amended claim 1. Instead, *Eidson ('362)* teaches logging of data samples obtained from sensors (*Eidson ('362)*, col. 4, lines 31-32). Moreover, *Eidson ('362)* does not disclose or suggest obtaining the time-stamp records via a network

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and analyzing the records as claimed in amended claim 1.

Given that claims 2-3, 6, and 9 depend from amended claim 1, it is submitted that claims 2-3, 6, and 9 are not obvious in view of *Eidson* (`362).

It is also submitted that amended claim 1 is not obvious in view of *Eidson* (`362) combined with *Eidson* (`180). *Eidson* (`180) does not disclose or suggest event logs that hold time-stamp records which include identifiers for software events as claimed in amended claim 1. Instead, *Eidson* (`180) teaches storing time values for computing clock adjustments (*Eidson* (`180), col. 5, lines 14-18). Moreover, *Eidson* (`180) does not disclose or suggest obtaining the time-stamp records via a network and analyzing the records as claimed in amended claim 1.

Given that claims 2-3, 6, and 9 depend from amended claim 1, it is submitted that claims 2-3, 6, and 9 are not obvious in view of *Eidson* (`362) and *Eidson* (`180).

It is further submitted that claim 10 is not obvious in view of *Eidson* (`362) and *Eidson* (`180) alone or in combination. Claim 10 is a method of performance monitoring in a distributed system that includes the limitations

> determining a set of significant events associated with a distributed application in the distributed system;
> providing each of a set of nodes applications associated with the distributed application with the functionality to generate a time-stamp record when one of the significant events occur;
> running an experiment in the distributed application that generates one or more of the significant events;
> obtaining the time-stamp records from the node applications and analyzing the time-stamp records.
(Claim 10, emphasis added).

Neither *Eidson* (`362) or *Eidson* (`180) disclose or suggest performance monitoring in a distributed system as claimed in claim 10. Instead, *Eidson* (`362) teaches

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control system components that self-organize (*Eidson* (`362), col. 1, line 65 through col 2, line 7) and *Eidson* (`180) teaches clock synchronization among local clocks (*Eidson* (`180), col. 2, lines 47-64).

Neither *Eidson* (`362) or *Eidson* (`180) disclose or suggest running an experiment in a distributed application that generates one or more of the significant events as claimed in claim 10. Moreover, neither *Eidson* (`362) or *Eidson* (`180) disclose or suggest obtaining the time-stamp records from the node applications and analyzing the time-stamp records as claimed in claim 10.

Given that claims 11-14 depend from claim 10, it is submitted that claims 11-14 are not obvious in view of the references cited by the Examiner.

It is respectfully submitted that in view of the amendments and arguments set forth above, the applicable objections and rejections have been overcome.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 50-1078 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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Version with Markings to Show Changes Made ✓

1.   A distributed system, comprising:
     a set of nodes that communicate via a network;
     a set of node applications <u>and a set of event time-stamp recorders and a set of synchronized clocks</u> distributed among the nodes<u>, the event time-stamp recorders generating a set of time-stamp records in response to a set of software events associated with the node applications, each time-stamp record including an identifier for the corresponding software event and a time value obtained from one of the synchronized clocks in response to the corresponding software event</u>;
          <u>means for obtaining the time-stamp records from the event logs via the network and analyzing the time-stamp records using a time base provided by the synchronized clocks.</u>
     [means for generating a time-stamp record for each of a set of significant events associated with one or more of the node applications such that the time-stamp records provides a synchronized time base across the nodes for the significant events.]

2.   The distributed system of claim 1, wherein <u>one or more of the nodes include one of the synchronized clocks.</u> [the means for generating a time-stamp record in one or more of the nodes include a synchronized clock.]

3.   The distributed system of claim <u>1</u> [2], wherein <u>one or more of the software events are associated with calls to a set of functions in the node applications which are deemed significant.</u> [one or more of the nodes include means for reading a time value from the corresponding synchronized clock and means for writing the time value

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into a local event log that holds the corresponding time-stamp records.]

6.   The distributed system of claim 1, wherein <u>one or more of the nodes obtain the corresponding time values from a synchronized clock contained in a companion node.</u> [the means for generating a time-stamp record in one or more of the nodes include a companion node having a synchronized clock.]